

ABSTRACT

In an optical microscope, a pair of convergence/collimation lenses (5, 6) are arranged in the common optical axis of a light beam directed toward a sample (15) being observed through an objective lens (14) and a light beam radiated or reflected from the sample to pass through the objective lens respectively. A means (7) for varying the phase of the transmitting light within a specified range is provided between these lenses so that the sample is irradiated while being focused at a depth corresponding to the phase at the wave front of the light beam entering the objective lens.